

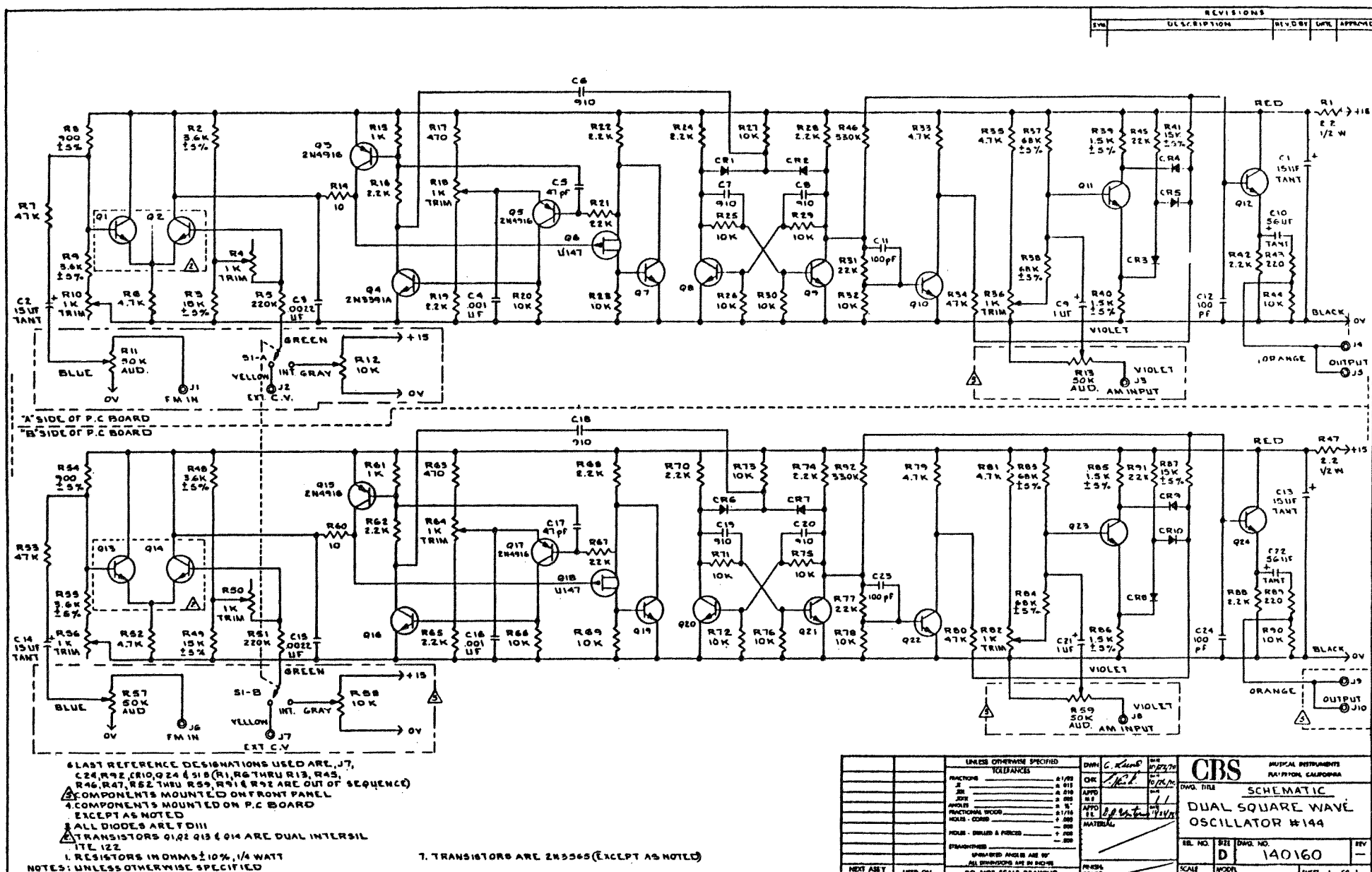
DATE THIS VOLTAGE SOURCE WAS RD 1-20-51

TBI  
-1 -2 -3 -4  
[O][O][O][O]  
YEL-RD BLK

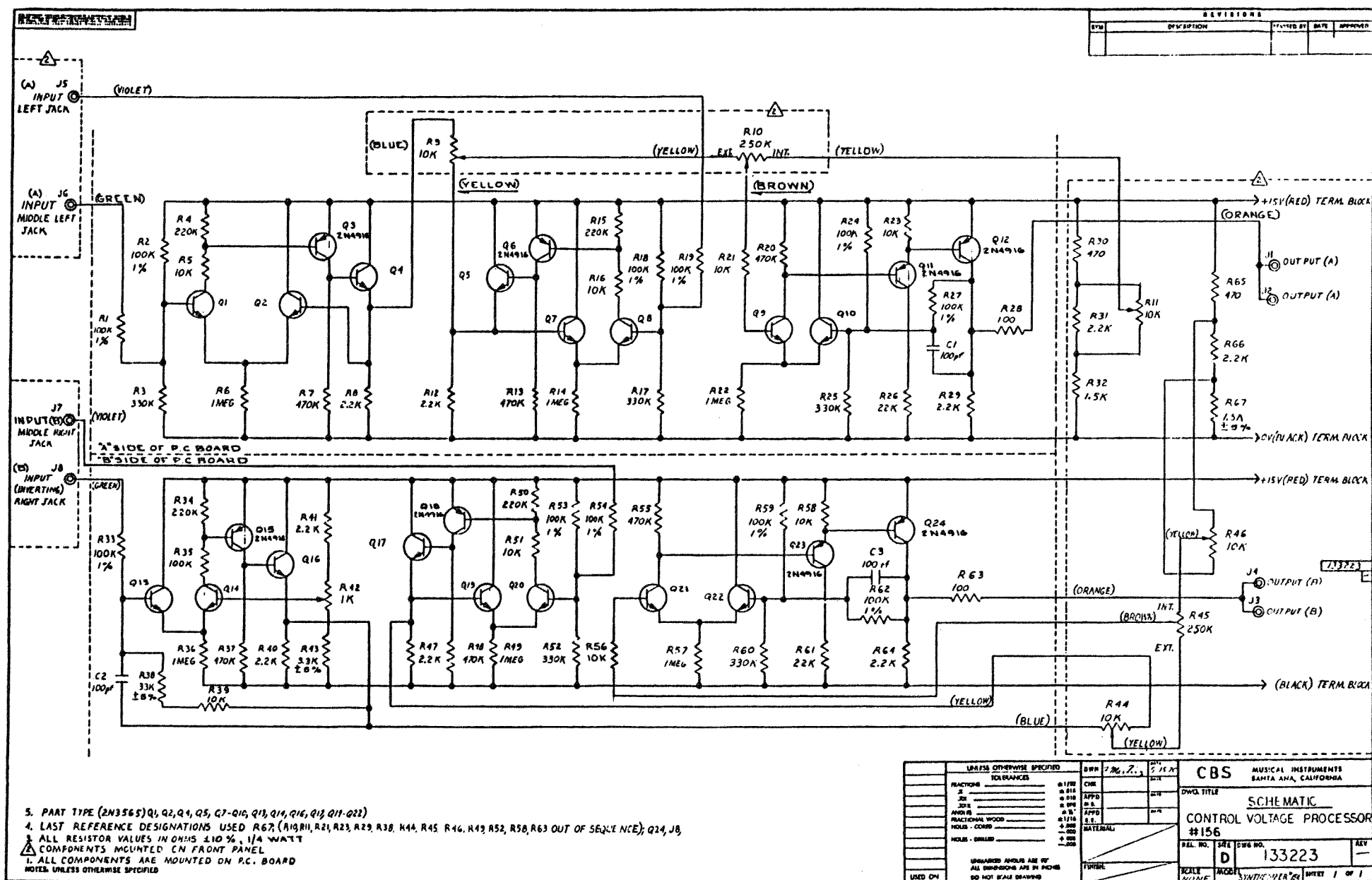
- [illegible]

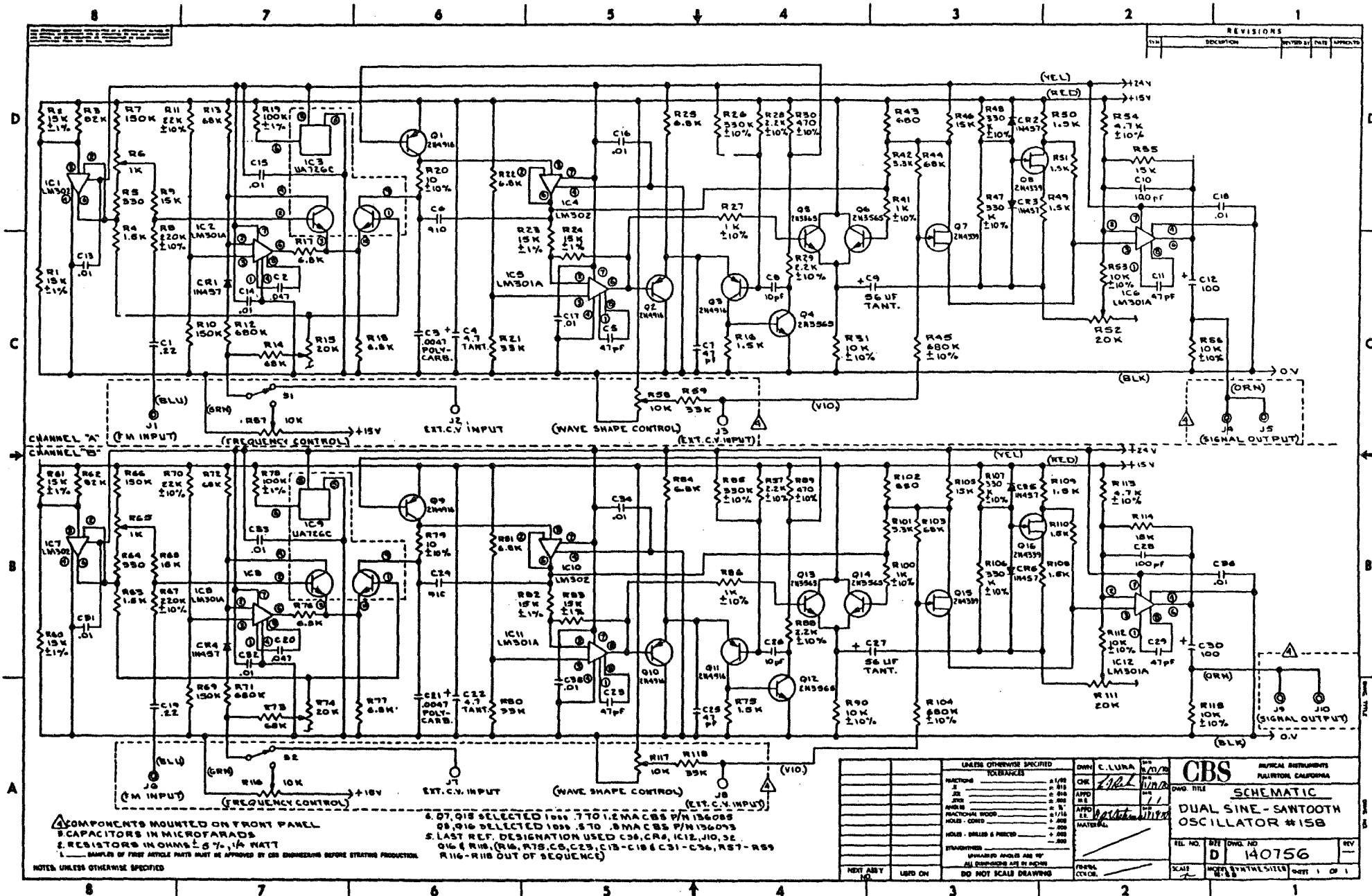




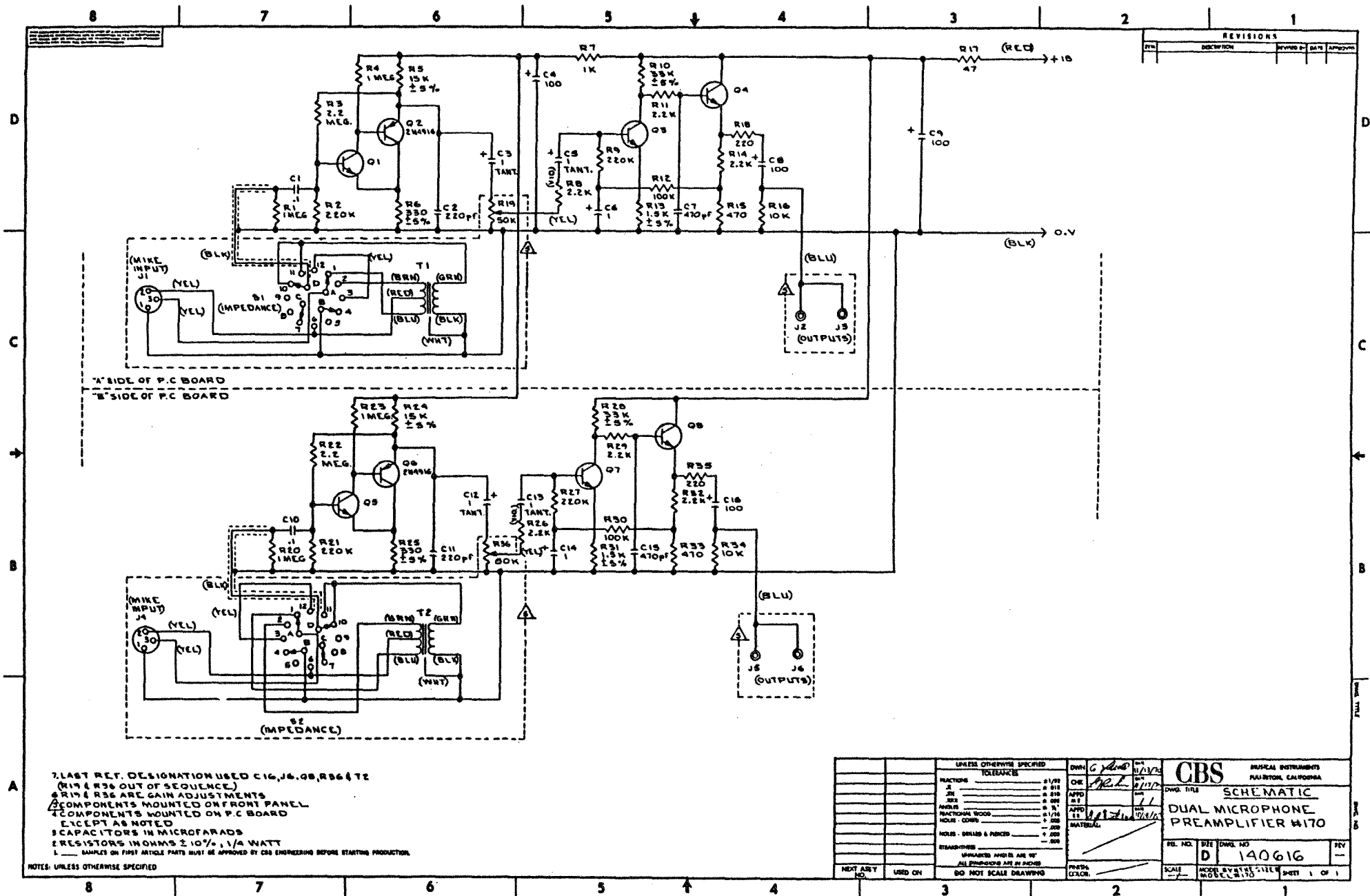


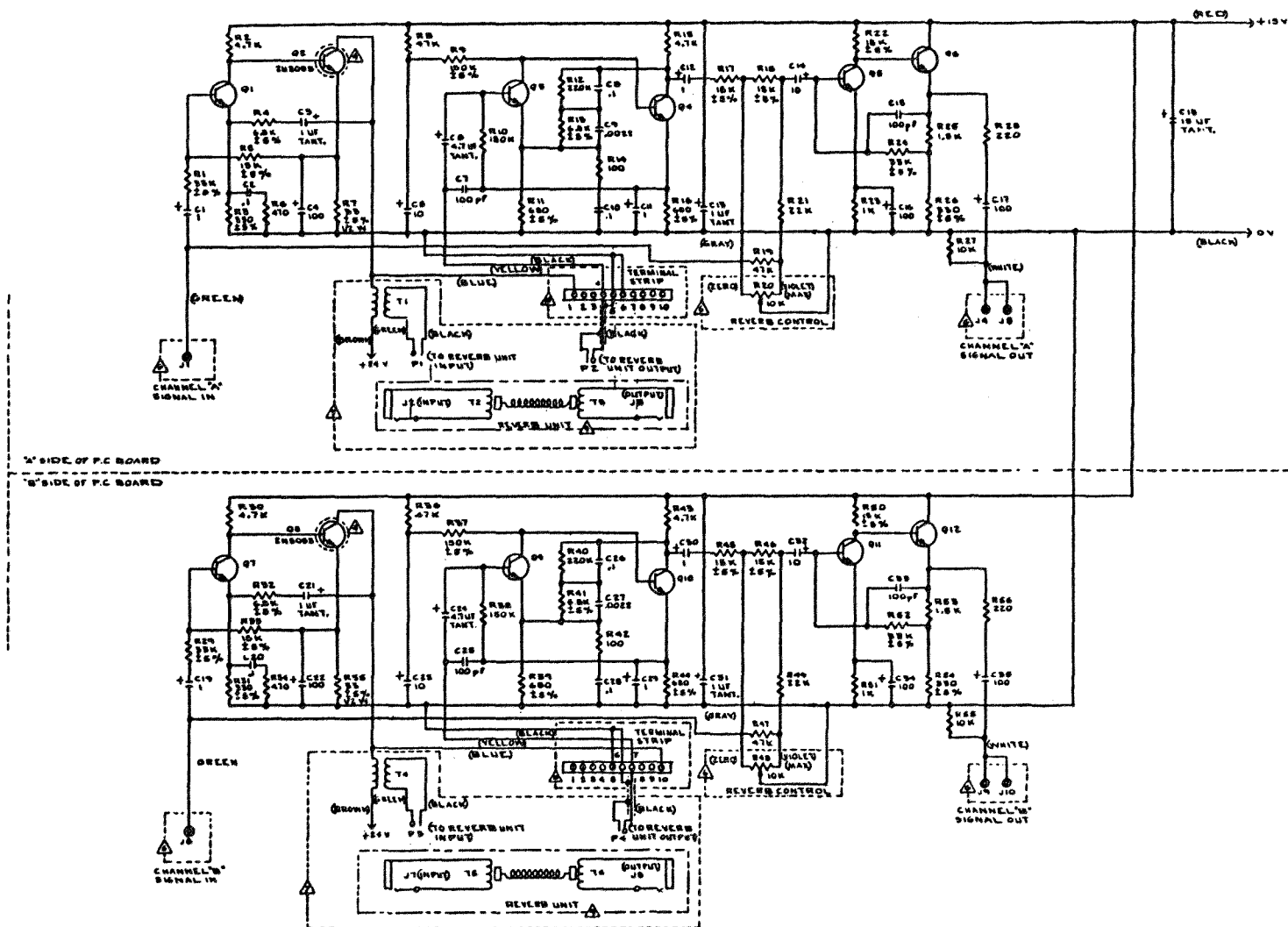








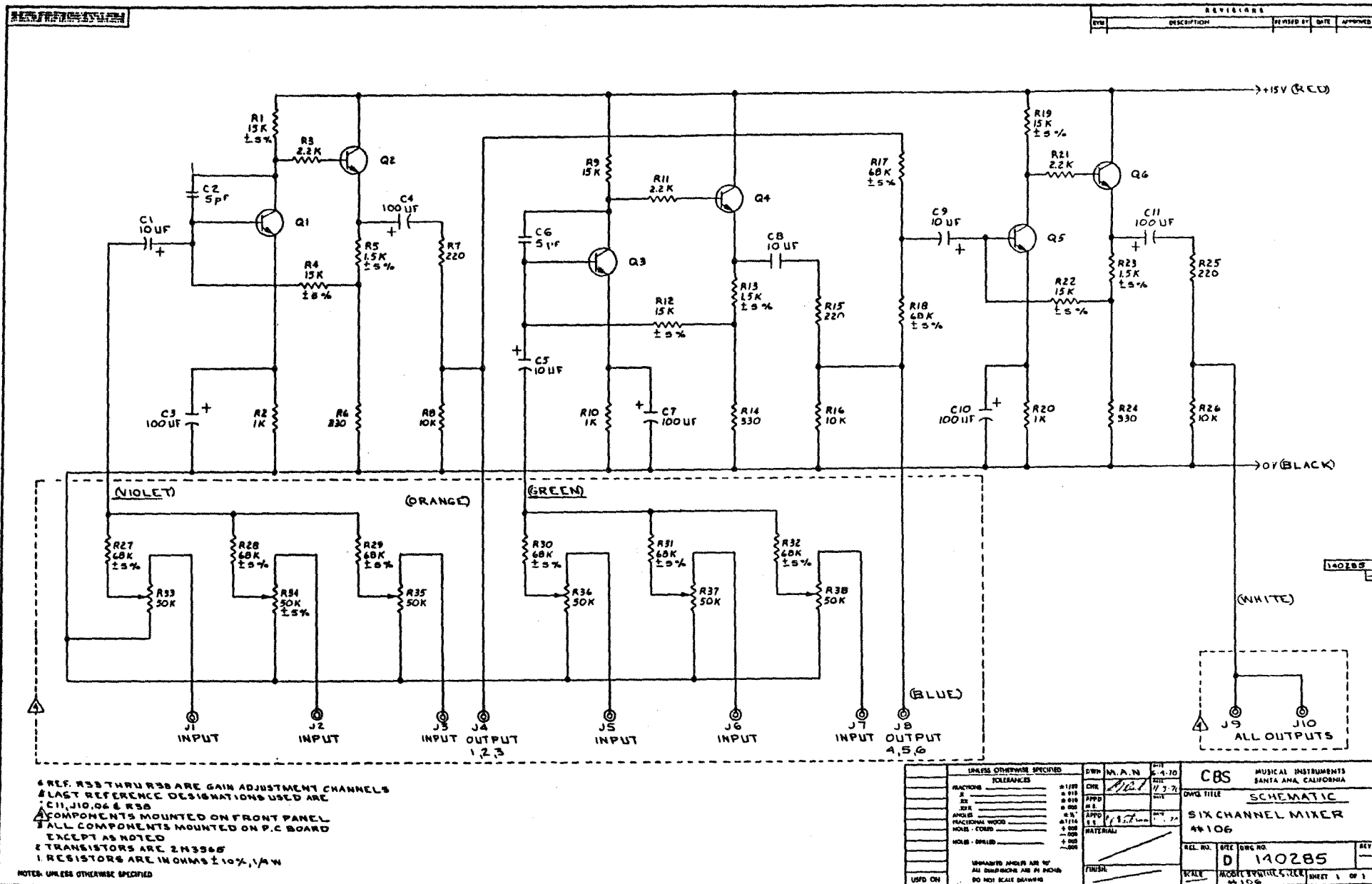




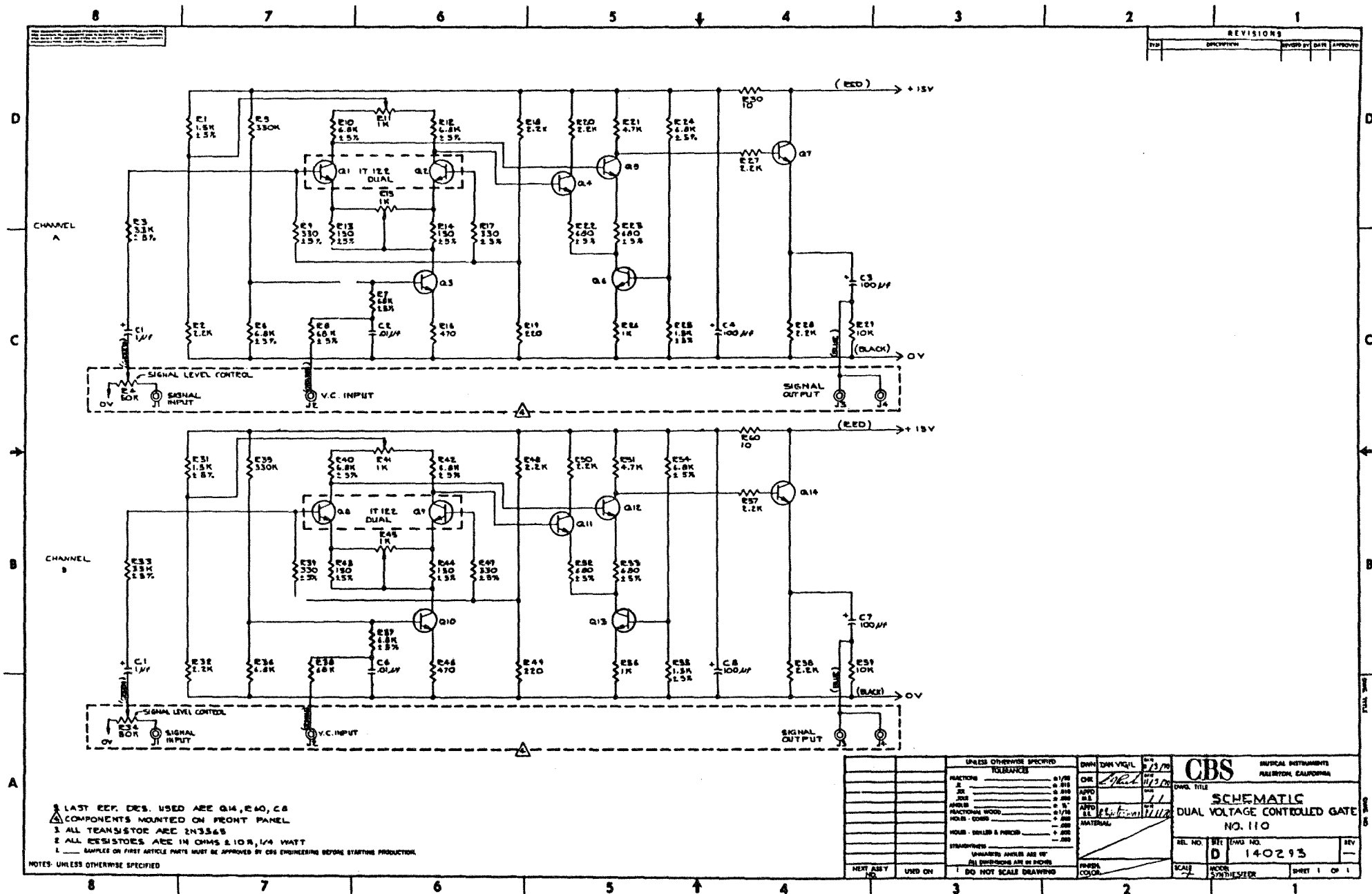
- 1 TERMINAL STRIP MOUNTED ON BACK OF MODULE.  
 2 100 MICROVOLT UNIT CDS P/N 000005.  
 3 LAST THREE REEL DESIGNATIONS USED  
 4 ARE CDS, J14/Q12, R22 & 74.  
 5 REVERS BYWIRE ASST MOUNTED IN  
 6 CASE 705.  
 7 COMPONENTS MOUNTED ON FRONT PANEL  
 8 ALL COMPONENTS MOUNTED ON P.C BOARD  
 9 (ACCEPT AS NOTED)  
 10 TWO 100 OHM 1% RES ARE INSERRED (E)  
 11 WITH HEATING CASE TOP WAREFIELD IS SET  
 12 CDS P/N 12075.  
 13 TRANSISTORS ARE INSERRED (ACCEPT AS NOTED)  
 14 CAPACITORS ARE IN PAID FORWARD  
 15 RESISTORS ARE IN 10%, 1/4 W.

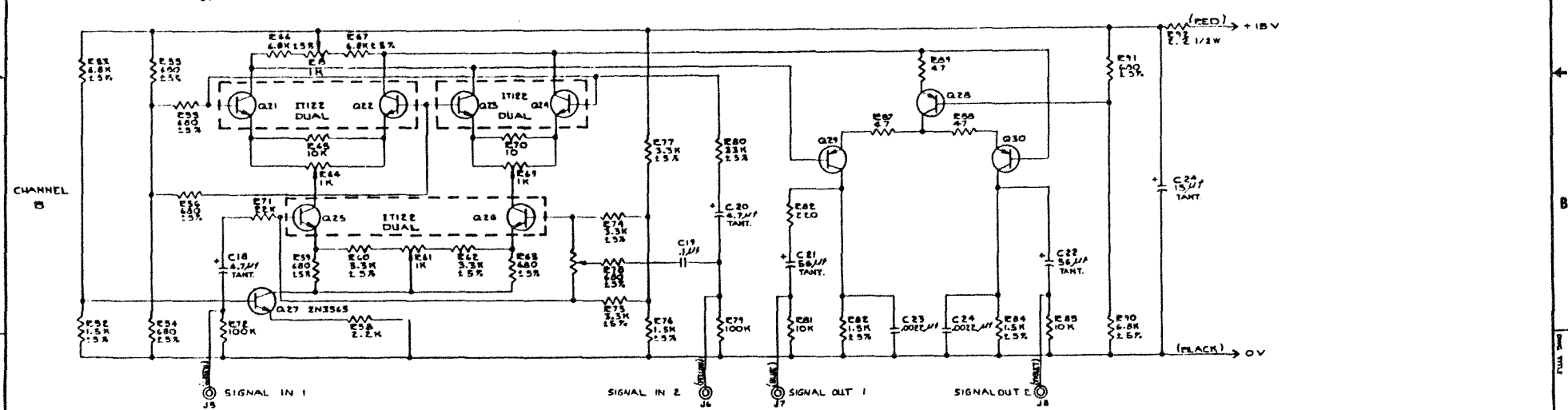
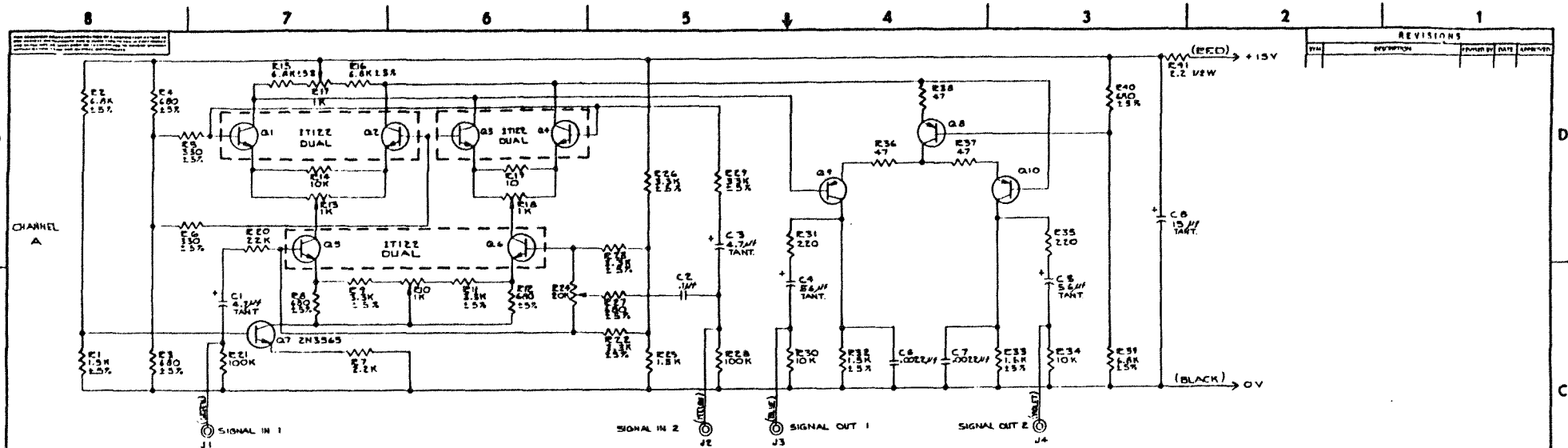
NOTES: UNLESS OTHERWISE SPECIFIED

[illegible]









- 4 LAST REF DES USED ARE R12, Q30 + C25  
 5 OMITTED R42-E31 Q11-Q20 + C9-C17  
 6 ALL JACKS ARE MOUNTED ON FRONT PANEL  
 7 ALL TRANSISTORS ARE 2N4116  
 8 ALL RESISTORS ARE IN OHMS  $\pm 10\%$ , 1/4 WATT  
 9 SAMPLES ON FIRST ARTICLE PARTS MUST BE APPROVED BY CBS ENGINEERING BEFORE STARTING PRODUCTION

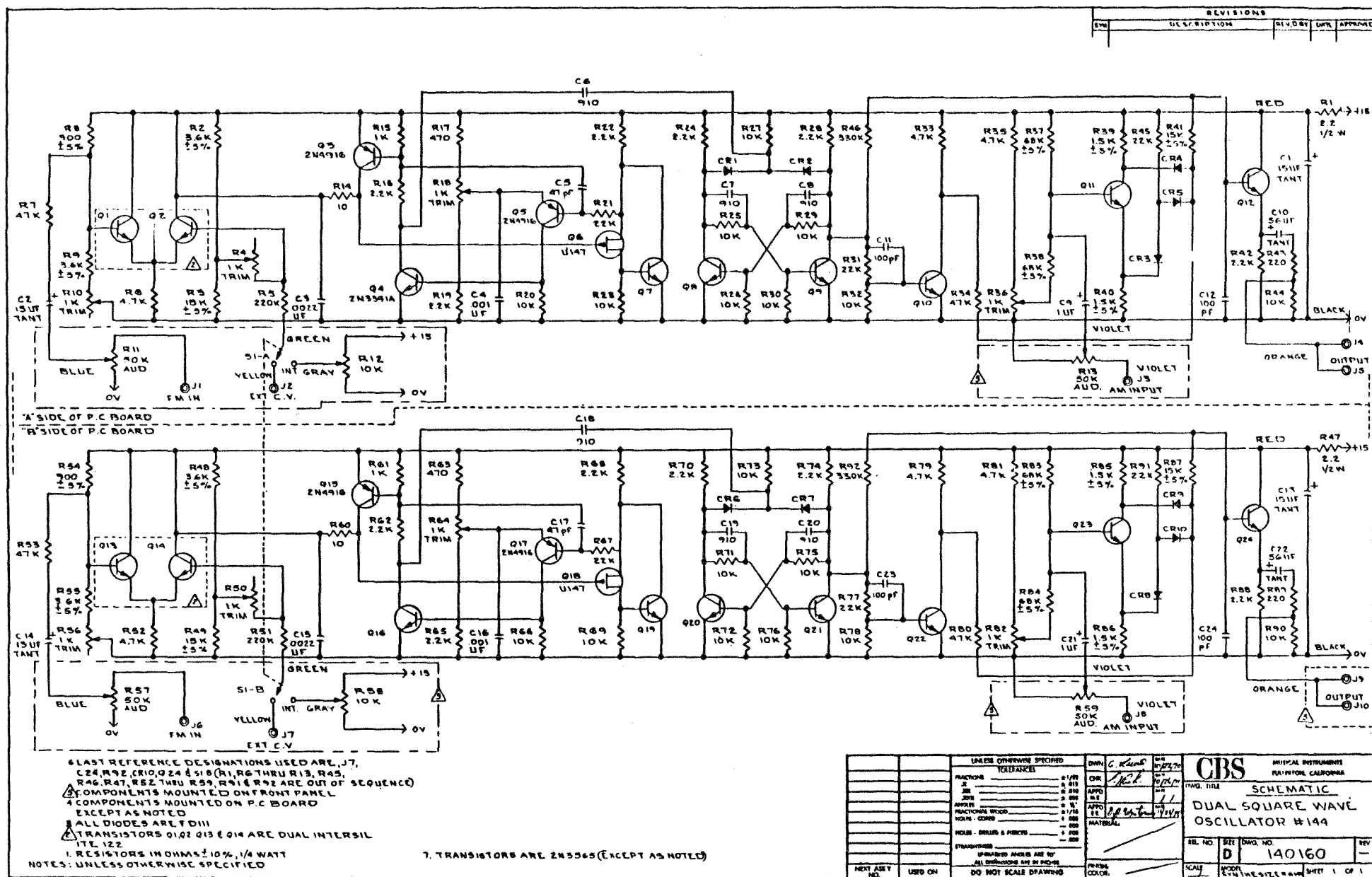
NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED		DRAFTSMAN		CHECKED		DATE		BY		DATE		REVISIONS	
KALBANK		1/15/70		1/15/70		1/15/70		1/15/70		1/15/70		1/15/70	
FUNCTIONS		A/10		B/10		C/10		D/10		E/10		F/10	
A/10		B/10		C/10		D/10		E/10		F/10		G/10	
B/10		C/10		D/10		E/10		F/10		G/10		H/10	
C/10		D/10		E/10		F/10		G/10		H/10		I/10	
D/10		E/10		F/10		G/10		H/10		I/10		J/10	
E/10		F/10		G/10		H/10		I/10		J/10		K/10	
F/10		G/10		H/10		I/10		J/10		K/10		L/10	
G/10		H/10		I/10		J/10		K/10		L/10		M/10	
H/10		I/10		J/10		K/10		L/10		M/10		N/10	
I/10		J/10		K/10		L/10		M/10		N/10		O/10	
J/10		K/10		L/10		M/10		N/10		O/10		P/10	
K/10		L/10		M/10		N/10		O/10		P/10		Q/10	
L/10		M/10		N/10		O/10		P/10		Q/10		R/10	
M/10		N/10		O/10		P/10		Q/10		R/10		S/10	
N/10		O/10		P/10		Q/10		R/10		S/10		T/10	
O/10		P/10		Q/10		R/10		S/10		T/10		U/10	
P/10		Q/10		R/10		S/10		T/10		U/10		V/10	
Q/10		R/10		S/10		T/10		U/10		V/10		W/10	
R/10		S/10		T/10		U/10		V/10		W/10		X/10	
S/10		T/10		U/10		V/10		W/10		X/10		Y/10	
T/10		U/10		V/10		W/10		X/10		Y/10		Z/10	
U/10		V/10		W/10		X/10		Y/10		Z/10		A/10	
V/10		W/10		X/10		Y/10		Z/10		A/10		B/10	
W/10		X/10		Y/10		Z/10		A/10		B/10		C/10	
X/10		Y/10		Z/10		A/10		B/10		C/10		D/10	
Y/10		Z/10		A/10		B/10		C/10		D/10		E/10	
Z/10		A/10		B/10		C/10		D/10		E/10		F/10	
A/10		B/10		C/10		D/10		E/10		F/10		G/10	
B/10		C/10		D/10		E/10		F/10		G/10		H/10	
C/10		D/10		E/10		F/10		G/10		H/10		I/10	
D/10		E/10		F/10		G/10		H/10		I/10		J/10	
E/10		F/10		G/10		H/10		I/10		J/10		K/10	
F/10		G/10		H/10		I/10		J/10		K/10		L/10	
G/10		H/10		I/10		J/10		K/10		L/10		M/10	
H/10		I/10		J/10		K/10		L/10		M/10		N/10	
I/10		J/10		K/10		L/10		M/10		N/10		O/10	
J/10		K/10		L/10		M/10		N/10		O/10		P/10	
K/10		L/10		M/10		N/10		O/10		P/10		Q/10	
L/10		M/10		N/10		O/10		P/10		Q/10		R/10	
M/10		N/10		O/10		P/10		Q/10		R/10		S/10	
N/10		O/10		P/10		Q/10		R/10		S/10		T/10	
O/10		P/10		Q/10		R/10		S/10		T/10		U/10	
P/10		Q/10		R/10		S/10		T/10		U/10		V/10	
Q/10		R/10		S/10		T/10		U/10		V/10		W/10	
R/10		S/10		T/10		U/10		V/10		W/10		X/10	
S/10		T/10		U/10		V/10		W/10		X/10		Y/10	
T/10		U/10		V/10		W/10		X/10		Y/10		Z/10	
U/10		V/10		W/10		X/10		Y/10		Z/10		A/10	
V/10		W/10		X/10		Y/10		Z/10		A/10		B/10	
W/10		X/10		Y/10		Z/10		A/10		B/10		C/10	
X/10		Y/10		Z/10		A/10		B/10		C/10		D/10	
Y/10		Z/10		A/10		B/10		C/10		D/10		E/10	
Z/10		A/10		B/10		C/10		D/10		E/10		F/10	
A/10		B/10		C/10		D/10		E/10		F/10		G/10	
B/10		C/10		D/10		E/10		F/10		G/10		H/10	
C/10		D/10		E/10		F/10		G/10		H/10		I/10	
D/10		E/10		F/10		G/10		H/10		I/10		J/10	
E/10		F/10		G/10		H/10							









UNLESS OTHERWISE SPECIFIED

VALUES

FRACIONS

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

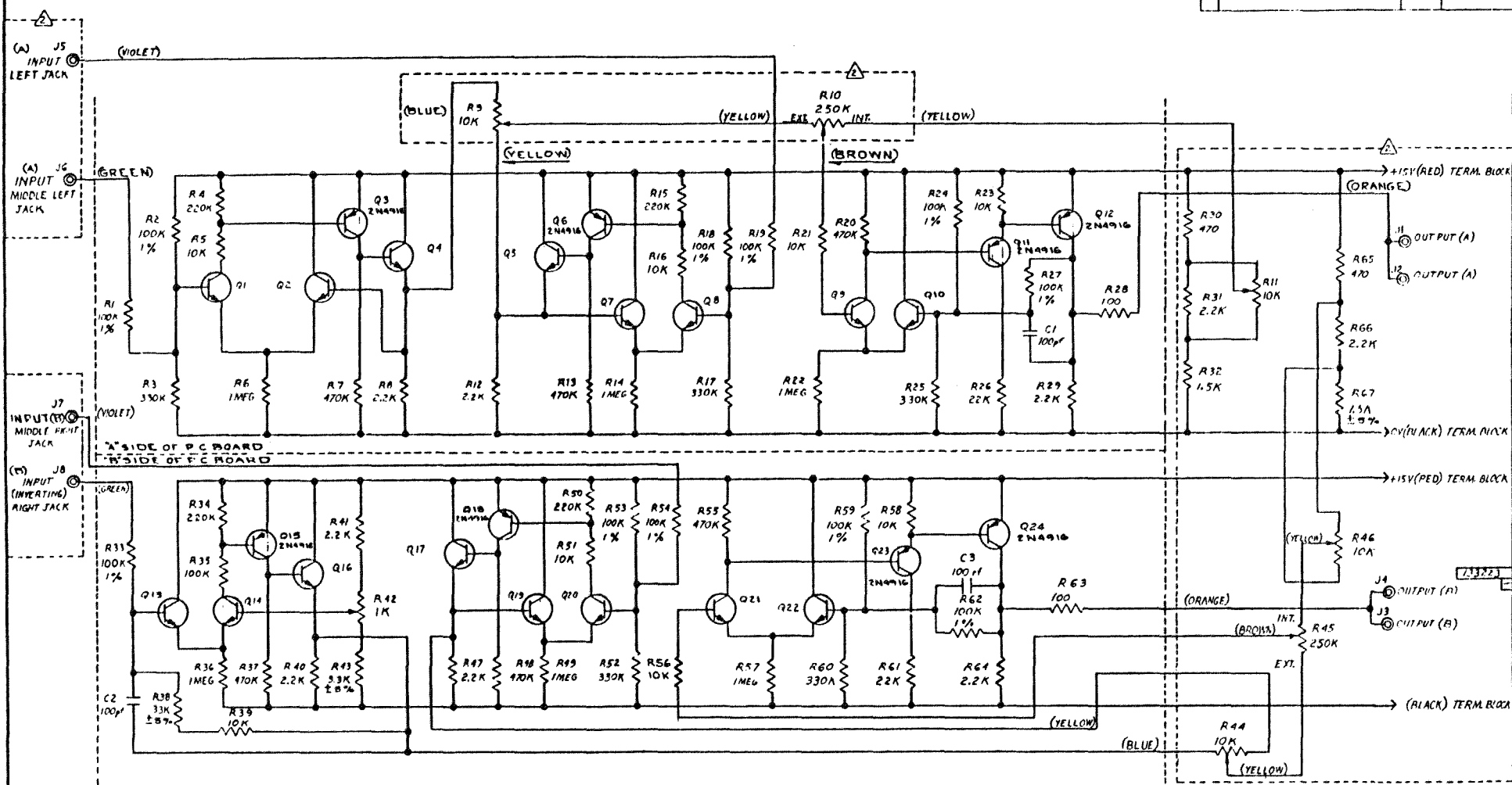
18

19

20



# SCHEMATIC



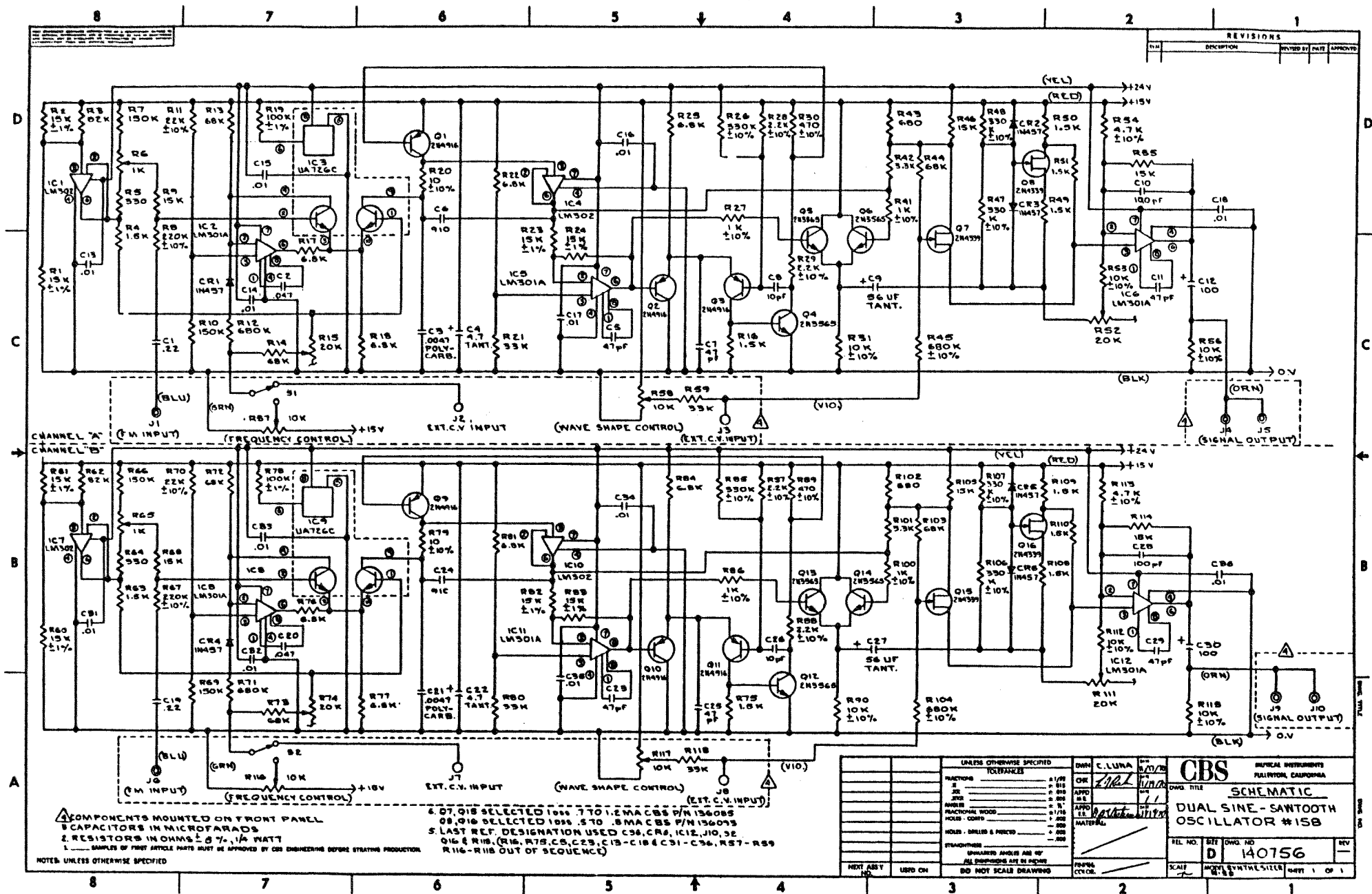
- PART TYPE (2N3565) Q1, Q2, Q4, Q5, Q7-Q10, Q13, Q14, Q16, Q17, Q19, Q22
- LAST REFERENCE DESIGNATIONS USED R67 (R19, R1, R21, R23, R29, R38, R44, R45, R46, R49, R52, R58, R63 OUT OF SEQUENCE); Q24, J8
- ALL RESISTOR VALUES IN OHMS  $\pm 10\%$ ,  $1/4$  WATT
- COMPONENTS MOUNTED ON FRONT PANEL
- ALL COMPONENTS ARE MOUNTED ON P.C. BOARD

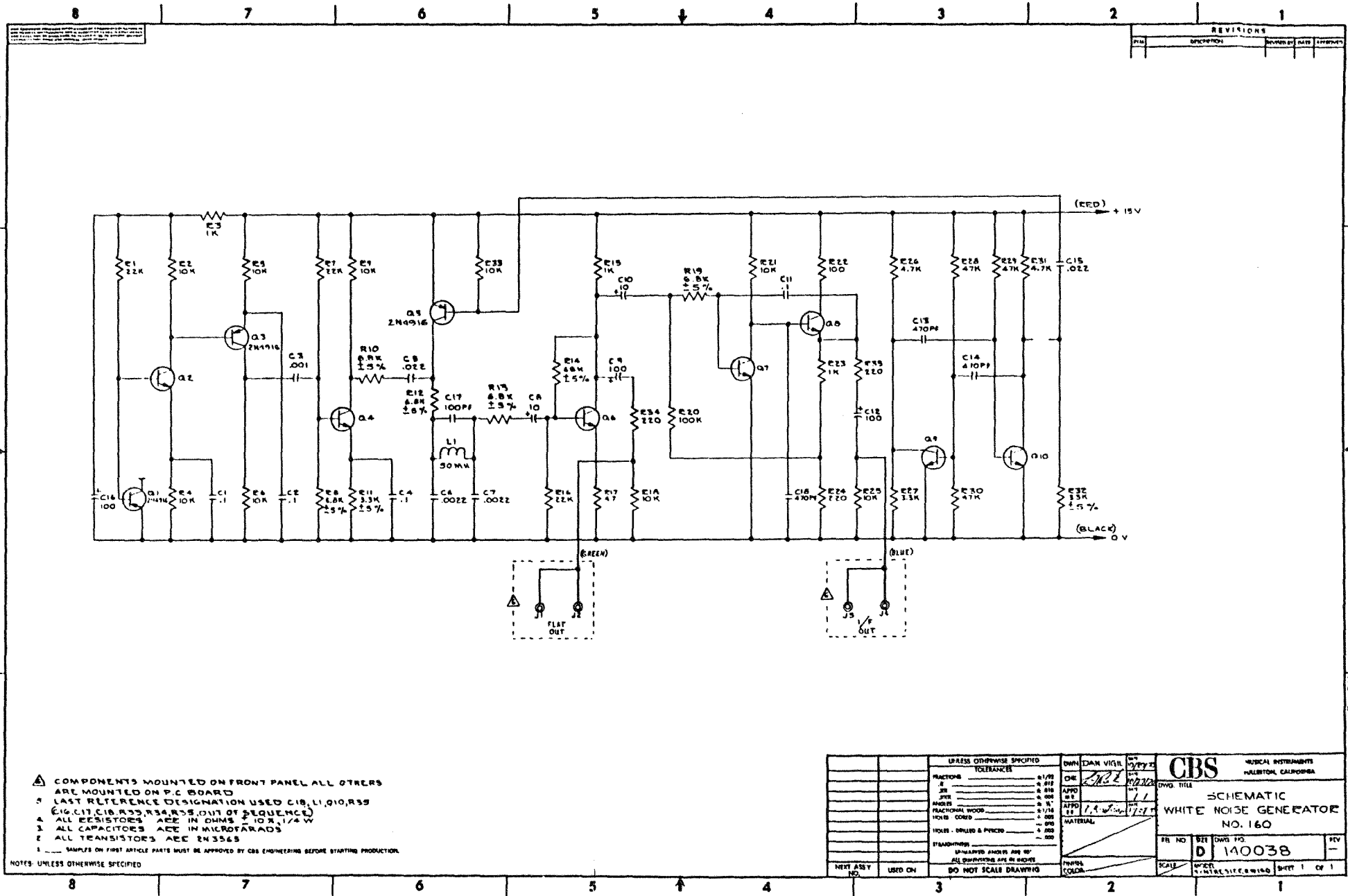
NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED		DWN		DATE	
REVISIONS	DESCRIPTION	DATE	BY	DATE	BY
1	SCHEMATIC	11/28/66	CHS	11/28/66	CHS
2	APPD	11/28/66	CHS	11/28/66	CHS
3	APPD	11/28/66	CHS	11/28/66	CHS
4	APPD	11/28/66	CHS	11/28/66	CHS
5	APPD	11/28/66	CHS	11/28/66	CHS
6	APPD	11/28/66	CHS	11/28/66	CHS
7	APPD	11/28/66	CHS	11/28/66	CHS
8	APPD	11/28/66	CHS	11/28/66	CHS
9	APPD	11/28/66	CHS	11/28/66	CHS
10	APPD	11/28/66	CHS	11/28/66	CHS
11	APPD	11/28/66	CHS	11/28/66	CHS
12	APPD	11/28/66	CHS	11/28/66	CHS
13	APPD	11/28/66	CHS	11/28/66	CHS
14	APPD	11/28/66	CHS	11/28/66	CHS
15	APPD	11/28/66	CHS	11/28/66	CHS
16	APPD	11/28/66	CHS	11/28/66	CHS
17	APPD	11/28/66	CHS	11/28/66	CHS
18	APPD	11/28/66	CHS	11/28/66	CHS
19	APPD	11/28/66	CHS	11/28/66	CHS
20	APPD	11/28/66	CHS	11/28/66	CHS
21	APPD	11/28/66	CHS	11/28/66	CHS
22	APPD	11/28/66	CHS	11/28/66	CHS
23	APPD	11/28/66	CHS	11/28/66	CHS
24	APPD	11/28/66	CHS	11/28/66	CHS
25	APPD	11/28/66	CHS	11/28/66	CHS
26	APPD	11/28/66	CHS	11/28/66	CHS
27	APPD	11/28/66	CHS	11/28/66	CHS
28	APPD	11/28/66	CHS	11/28/66	CHS
29	APPD	11/28/66	CHS	11/28/66	CHS
30	APPD	11/28/66	CHS	11/28/66	CHS
31	APPD	11/28/66	CHS	11/28/66	CHS
32	APPD	11/28/66	CHS	11/28/66	CHS
33	APPD	11/28/66	CHS	11/28/66	CHS
34	APPD	11/28/66	CHS	11/28/66	CHS
35	APPD	11/28/66	CHS	11/28/66	CHS
36	APPD	11/28/66	CHS	11/28/66	CHS
37	APPD	11/28/66	CHS	11/28/66	CHS
38	APPD	11/28/66	CHS	11/28/66	CHS
39	APPD	11/28/66	CHS	11/28/66	CHS
40	APPD	11/28/66	CHS	11/28/66	CHS
41	APPD	11/28/66	CHS	11/28/66	CHS
42	APPD	11/28/66	CHS	11/28/66	CHS
43	APPD	11/28/66	CHS	11/28/66	CHS
44	APPD	11/28/66	CHS	11/28/66	CHS
45	APPD	11/28/66	CHS	11/28/66	CHS
46	APPD	11/28/66	CHS	11/28/66	CHS
47	APPD	11/28/66	CHS	11/28/66	CHS
48	APPD	11/28/66	CHS	11/28/66	CHS
49	APPD	11/28/66	CHS	11/28/66	CHS
50	APPD	11/28/66	CHS	11/28/66	CHS
51	APPD	11/28/66	CHS	11/28/66	CHS
52	APPD	11/28/66	CHS	11/28/66	CHS
53	APPD	11/28/66	CHS	11/28/66	CHS
54	APPD	11/28/66	CHS	11/28/66	CHS
55	APPD	11/28/66	CHS	11/28/66	CHS
56	APPD	11/28/66	CHS	11/28/66	CHS
57	APPD	11/28/66	CHS	11/28/66	CHS
58	APPD	11/28/66	CHS	11/28/66	CHS
59	APPD	11/28/66	CHS	11/28/66	CHS
60	APPD	11/28/66	CHS	11/28/66	CHS
61	APPD	11/28/66	CHS	11/28/66	CHS
62	APPD	11/28/66	CHS	11/28/66	CHS
63	APPD	11/28/66	CHS	11/28/66	CHS
64	APPD	11/28/66	CHS	11/28/66	CHS
65	APPD	11/28/66	CHS	11/28/66	CHS
66	APPD	11/28/66	CHS	11/28/66	CHS
67	APPD	11/28/66	CHS	11/28/66	CHS
68	APPD	11/28/66	CHS	11/28/66	CHS
69	APPD	11/28/66	CHS	11/28/66	CHS
70	APPD	11/28/66	CHS	11/28/66	CHS
71	APPD	11/28/66	CHS	11/28/66	CHS
72	APPD	11/28/66	CHS	11/28/66	CHS
73	APPD	11/28/66	CHS	11/28/66	CHS
74	APPD	11/28/66	CHS	11/28/66	CHS
75	APPD	11/28/66	CHS	11/28/66	CHS
76	APPD	11/28/66	CHS	11/28/66	CHS
77	APPD	11/28/66	CHS	11/28/66	CHS
78	APPD	11/28/66	CHS	11/28/66	CHS
79	APPD	11/28/66	CHS	11/28/66	CHS
80	APPD	11/28/66	CHS	11/28/66	CHS
81	APPD	11/28/66	CHS	11/28/66	CHS
82	APPD	11/28/66	CHS	11/28/66	CHS
83	APPD	11/28/66	CHS	11/28/66	CHS
84	APPD	11/28/66	CHS	11/28/66	CHS
85	APPD	11/28/66	CHS	11/28/66	CHS
86	APPD	11/28/66	CHS	11/28/66	CHS
87	APPD	11/28/66	CHS	11/28/66	CHS
88	APPD	11/28/66	CHS	11/28/66	CHS
89	APPD	11/28/66	CHS	11/28/66	CHS
90	APPD	11/28/66	CHS	11/28/66	CHS
91	APPD	11/28/66	CHS	11/28/66	CHS
92	APPD	11/28/66	CHS	11/28/66	CHS
93	APPD	11/28/66	CHS	11/28/66	CHS
94	APPD	11/28/66	CHS	11/28/66	CHS
95	APPD	11/28/66	CHS	11/28/66	CHS
96	APPD	11/28/66	CHS	11/28/66	CHS
97	APPD	11/28/66	CHS	11/28/66	CHS
98	APPD	11/28/66	CHS	11/28/66	CHS
99	APPD	11/28/66	CHS	11/28/66	CHS
100	APPD	11/28/66	CHS	11/28/66	CHS

CBS MUSICAL INSTRUMENTS SANTA ANA, CALIFORNIA	
DWG. TITLE SCHEMATIC	
CONTROL VOLTAGE PROCESSOR #156	
REL. NO. D	REV. NO. 133223
SCALE NONE	SHEET 1 OF 1



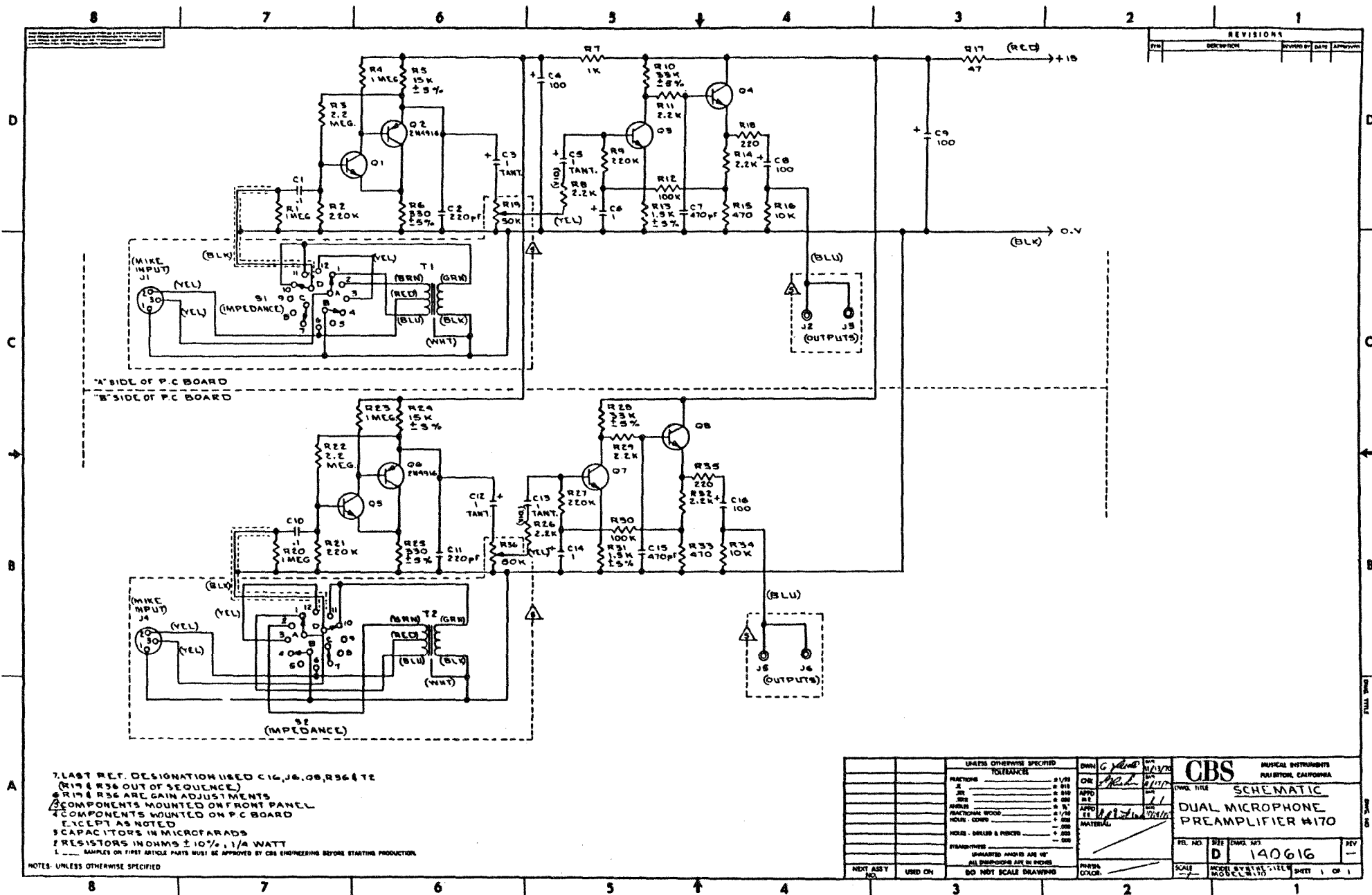


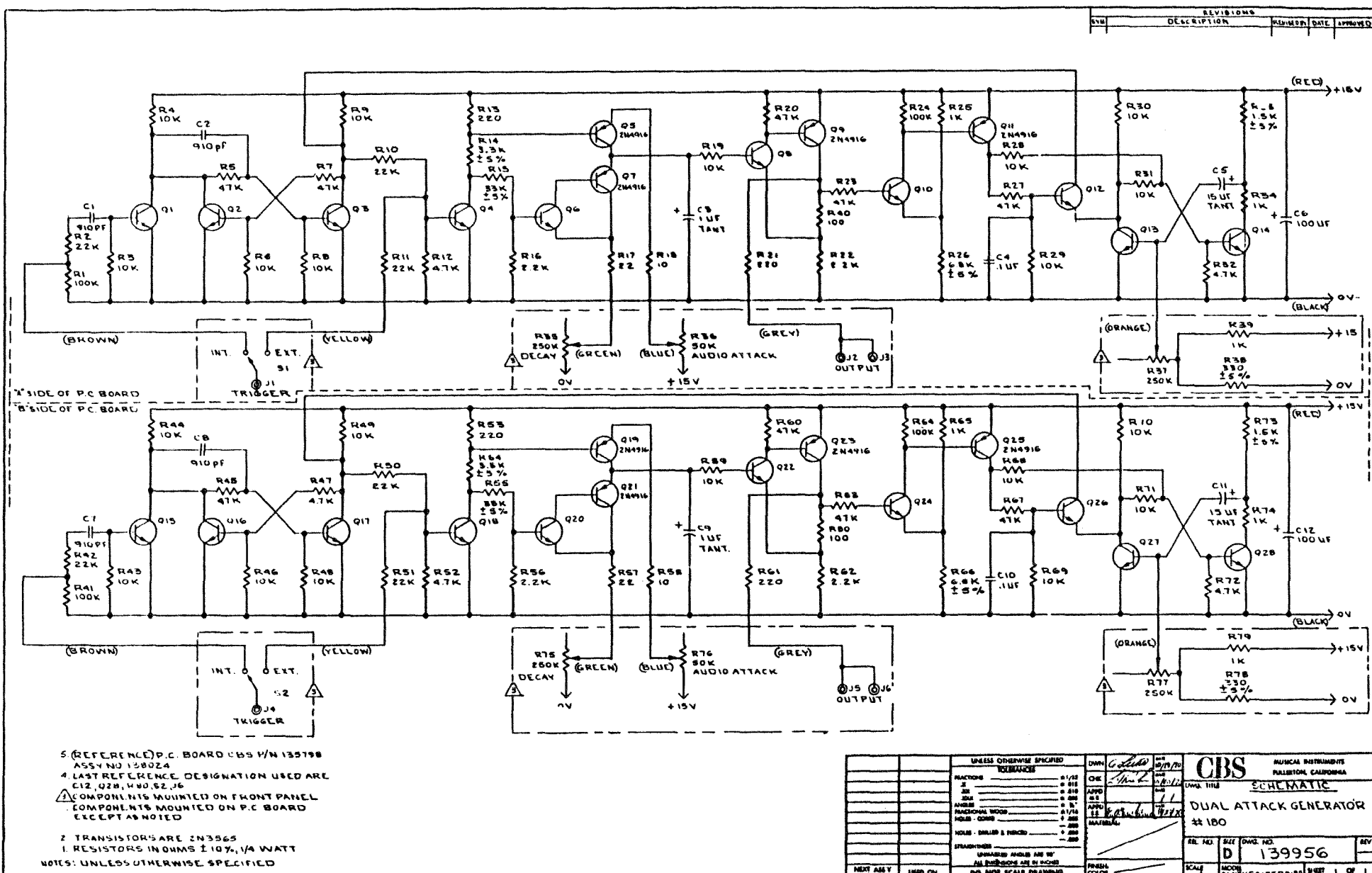


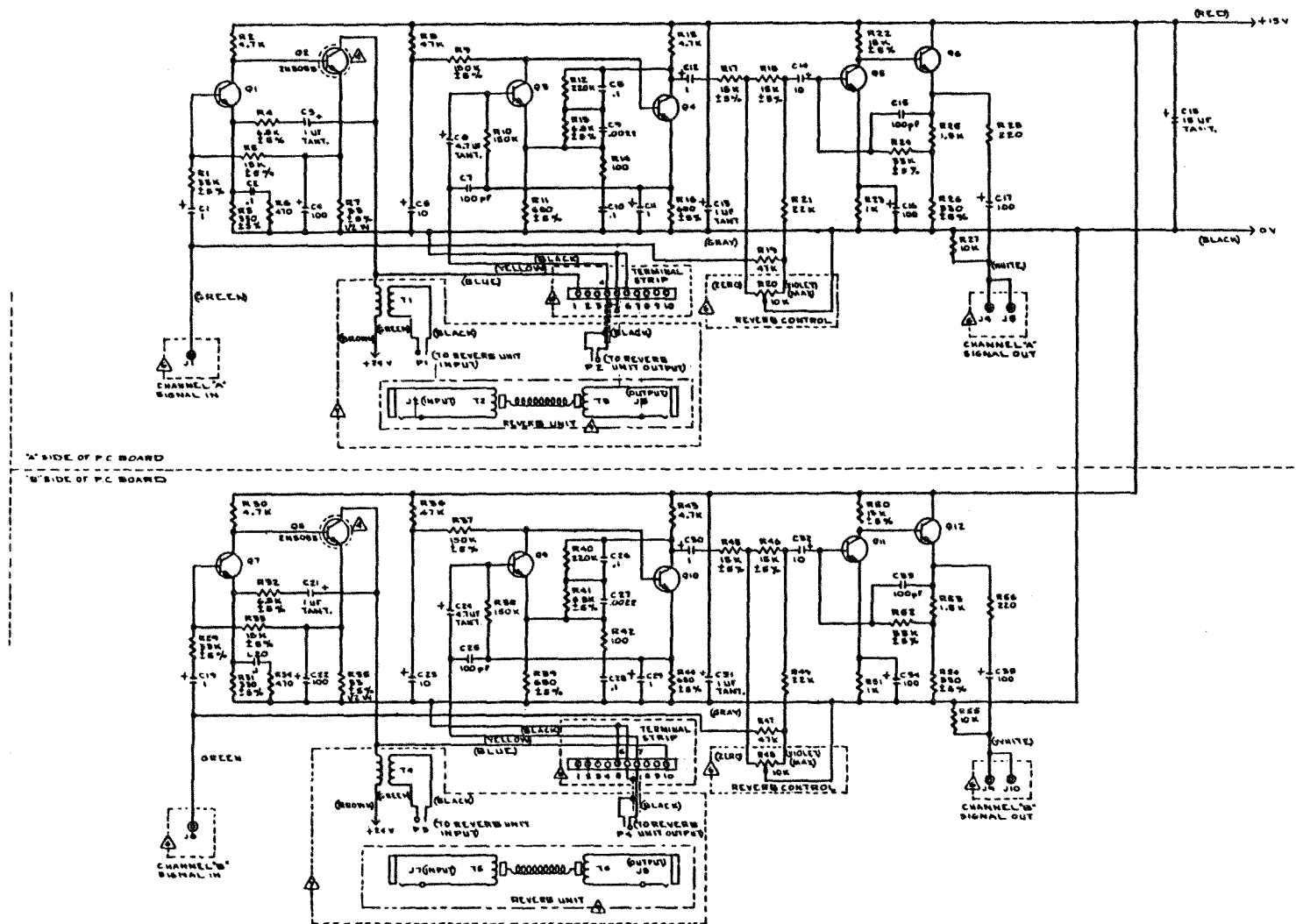
- ▲ COMPONENTS MOUNTED ON FRONT PANEL ALL OTHERS ARE MOUNTED ON P.C. BOARD  
 \* LAST REFERENCE DESIGNATION USED C18, L1, Q10, R35 (C14, C17, C18, R35, R34, R33, OUT OF SEQUENCE)  
 1. ALL RESISTORS ARE IN OHMS  $\pm 10\%$ , 1/4 W  
 2. ALL CAPACITORS ARE IN MICROFARADS  
 3. ALL TRANSISTORS ARE 2N3565  
 4. SAMPLES ON FIRST ARTICLE PARTS MUST BE APPROVED BY CBS ENGINEERING BEFORE STARTING PRODUCTION.

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED		OWN: DAN VIGIL		DATE: 11/22/62	
TOLERANCES		CHK: [Signature]		DWG. TITLE	
FRACTIONS	1/100	1/100		1/100	
INCHES	1/16	1/16		1/16	
FEET	1/8	1/8		1/8	
ANGLES	1/16	1/16		1/16	
PLATE/CLAMP	1/16	1/16		1/16	
HOLES - DRILL & REAM	1/16	1/16		1/16	
STRAIGHTENING	1/16	1/16		1/16	
UPPER AND LOWER ARE 10'		ALL DIMENSIONS ARE IN INCHES		DO NOT SCALE DRAWING	
NEXT ASSY NO.	USED ON	MATERIAL		COLOR	
		CBS		MUSICAL INSTRUMENTS HUNTINGTON, CALIFORNIA	
		SCHEMATIC		WHITE NOISE GENERATOR NO. 160	
REV NO.	REV	DWG. NO.	REV	REV	
1		140038			
SCALE		INCHES		SHEET 1 OF 1	







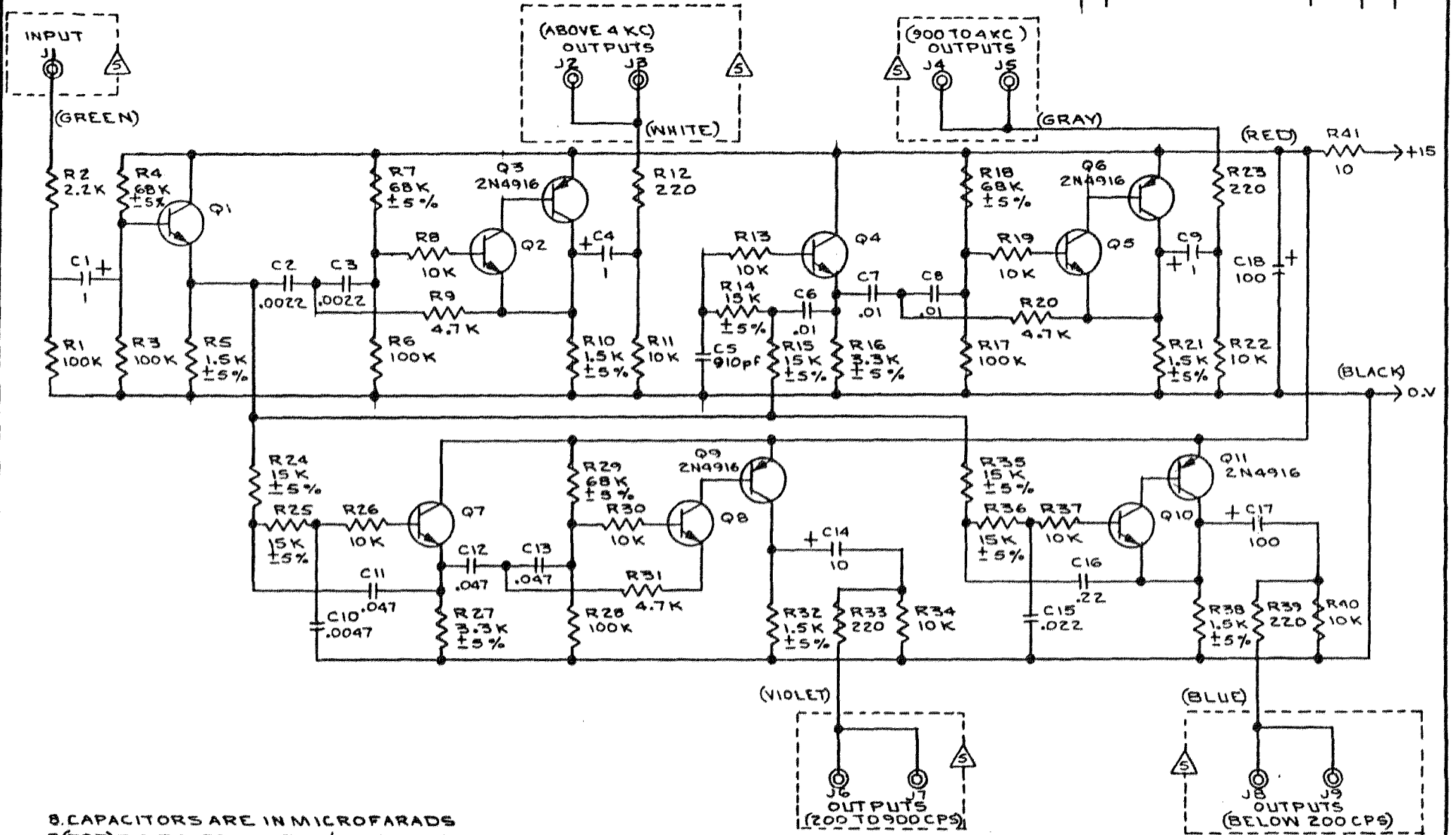
- ▲ TERMINAL STRIP MOUNTED ON BACK OF MODULE
- ▲ (1) REVERSE UNIT CBS P/N 06005
- ▲ LAST REFERENCE DESIGNATIONS USED ARE CBS JN112, R66, & T6
- ▲ REVERSE SPEAKER ASSEMBLY MOUNTED IN CABINET
- ▲ COMPONENTS MOUNTED ON FRONT PANEL
- ▲ ALL COMPONENTS MOUNTED ON P.C. BOARD
- ▲ (EXCEPT AS NOTED)
- ▲ TRANSISTORS Q1 & Q2 ARE 2N3055 (KEY) WITH HEATSINK CASE TUB WAREFIELD M207 CBS P/N 150016
- ▲ TRANSISTORS ARE 2N3055 (EXCEPT AS NOTED)
- ▲ CAPACITORS ARE IN MICROFARADS
- ▲ RESISTORS IN OHMS  $\pm 10\%$ ,  $\frac{1}{4}$  W.

NOTE: UNLESS OTHERWISE SPECIFIED

DATE: 10/1/51 BY: J. L. BROWN CHECKED: J. L. BROWN APPROVED: J. L. BROWN		100-100000 01-1-100000 100-100000
<b>CBS</b> COMMUNICATIONS BAYVIEW, CALIFORNIA		
DUAL REVERBERATION UNIT 10190		
REVISION 1 2 3 4 5 6 7 8 9 10	DESCRIPTION 1 2 3 4 5 6 7 8 9 10	DATE 10/1/51 BY J. L. BROWN CHECKED J. L. BROWN APPROVED J. L. BROWN

SYM	DESCRIPTION	REVISED BY	DATE	APPROVED

THIS DOCUMENT CONTAINS INFORMATION OF A PROPRIETARY NATURE AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE INSTRUMENTS DIVISION.



- 8. CAPACITORS ARE IN MICROFARADS
- 7. (REF) P.C BOARD IS CBS P/N 135814 ASSY NO. 138081
- 6. LAST REFERENCE DESIGNATIONS USED ARE C19, J9, Q11 & R41 (R41 & C18 OUT OF SEQUENCE)
- 5. COMPONENTS MOUNTED ON FRONT PANEL
- 4. ALL COMPONENTS MOUNTED ON P.C BOARD EXCEPT AS NOTED
- 3. TRANSISTORS ARE 2N3563
- 2. RESISTORS IN OHMS  $\pm 10\%$ ,  $\frac{1}{4}$  W
- 1. SAMPLES ON FIRST ARTICLE PARTS MUST BE APPROVED BY CBS ENGINEERING BEFORE STARTING PRODUCTION.

NOTES: UNLESS OTHERWISE SPECIFIED

		UNLESS OTHERWISE SPECIFIED TOLERANCES		DWN	G. Shind	DATE	11/3/70	CBS			MUSICAL INSTRUMENTS FULLERTON, CALIFORNIA								
		FRACTIONS	± 1/32	CHK	G. Shind	DATE	11/4/70	DWG. TITLE		SCHEMATIC									
		.X	± .015	APPD	M.E.	DATE	1/1	BANDPASS FILTER #194		REL. NO.		SIZE	DWG. NO.	REV					
		.XX	± .010	APPD	E.E.	DATE	1/4/70												
		.XXX	± .005	MATERIAL:															
		ANGLES	± 1/2°									SCALE		MODELS SYNTHESIZER #194		SHEET 1 OF 1			
		FRACTIONAL WOOD	± 1/16																
		HOLES - CORED	± .005																
		HOLES - DRILLED & PIERCED	± .003																
		STRAIGHTNESS	— .000																
		UNMARKED ANGLES ARE 90° ALL DIMENSIONS ARE IN INCHES																	
NEXT ASSY NO.		USED ON		DO NOT SCALE DRAWING		FINISH: COLOR:													

